

LNMUonline.com **Botany (Hons.) Paper-I**

Answer five questions in all, selecting atleast one question from each of Section-A, Section-B and Section-C. Q.No. 1 is compulsory.

1. Choose the correct answer of the following : LNMUonline.com
- (a) Chlorophyll d is unique to :
(i) Chlorophyceae (ii) Phaeophyceae (iii) Rhodophyceae (iv) Cyanophyceae
 - (b) Embryo is absent in :
(i) Algae (ii) Bryophytes (iii) Pteridophytes (iv) Gymnosperms
 - (c) Pyrenoid consists of :
(i) Protein surrounded by starch (ii) Only protein
(iii) Starch surrounded by protein (iv) Only starch
 - (d) A parasitic algae is :
(i) Sargassum (ii) Nostoc (iii) Cephaleuros (iv) Chlorella
 - (e) Elates are present in the capsule of :
(i) Marchantiales (ii) Bryales (iii) Sphagnales (iv) Anthocerotales
 - (f) Stomata are present in the capsule wall of the genus :
(i) Riccia (ii) Marchantia (iii) Anthoceros (iv) Porella
 - (g) Most economically important bryophyte is :
(i) Polytrichum (ii) Marchantia (iii) Pellia (iv) Sphagnum
 - (h) Development of sporangium in ophioglossum is :
(i) Leptosporangiate (ii) Eusporangiate (iii) Both of the above (iv) None
 - (i) Rhynia lacks :
(i) Root (ii) Rhizoids (iii) Rhizome (iv) Sporangia
 - (j) The presence of fungus is essential for the development of prothallus in :
(i) Psilotum (ii) Lycopodium (iii) Selaginella (iv) Tmesipteris

Section-A

- 2. Describe the role of algae in Human Welfare.
- 3. Describe the important features and life-history of Ectocarpus or Vaucheria.
- 4. Write short notes on any three of the following :
(b) Nucule of chara (c) Thallus of coleochaeta (d) Role of Blue green algae in N₂-fixation (e) Pigments of different groups of algae

Section-B

- 5. Describe the various modes of vegetative reproduction in Bryophytes studied by you.
- 6. Give an account of gradual sterilization of sporogenous tissue in Bryophytes studied by you.
- 7. Describe the salient features of Anthoceros and biological significance of its sporophyte. LNMUonline.com

Section-C

- 8. Describe Stele. Discuss the evolutionary trends in stelar organization in pteridophytes studied by you.
- 9. Discuss the structure and morphological nature of spike of Ophioglossum.
- 10. Write short notes on any three of the following :
(a) Telome theory (b) Rhynia (c) L.S. of cone of Calamites (calomostachya)
(d) Equisetum strobilus (e) Internal structure of stem of Selaginella